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UNITED STATES DEPARTMENT OF AGRICULTURE  
Agricultural Marketing Service

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UNITED STATES STANDARDS  
FOR  
ROUGH RICE



As Amended, Effective August 1, 1939

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Washington, D. C.

July 1939



By virtue of the authority vested in the Secretary of Agriculture by the act of Congress entitled "An act making appropriations for the Department of Agriculture and for the Farm Credit Administration for the fiscal year ending June 30, 1937, and for other purposes" approved June 4, 1936 (Public No. 637 - 74th Congress) I, H. A. Wallace, Secretary of Agriculture, do hereby fix, establish, and promulgate in lieu of all existing standards for rough rice the following standards of quality and condition for rough rice, which shall be in force and effect on and after August 1, 1936, and so long as Congress shall provide the necessary authority therefor, unless amended or superseded by standards hereafter prescribed and promulgated under such authority.

In testimony whereof I have hereunto set my hand and caused the official seal of the Department of Agriculture to be affixed in the city of Washington, this 29th day of July, 1936.

( S E A L )

/s/ H. A. Wallace,  
Secretary.

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Note.- The "basis of grade determinations (Southern Rice)" was amended effective May 26, 1938. This amendment has been incorporated in this publication, on page 12.

Note.- The section "Special Grades for Rough Rice" was amended effective August 1, 1939. This amendment has been incorporated in this publication, on page 7.





UNITED STATES STANDARDS FOR ROUGH RICE <sup>1/</sup>

For the purposes of the official rough rice standards of the United States:

ROUGH RICE.— Rough rice shall be rice of the classes specified in these standards which on the basis of the original rice consists of fifty percent or more of kernels of rice from which the hulls have not been removed; which contains not more than fifty percent of matter other than rice; and which contains not more than ten percent of cereal grains of a kind or kinds other than rice.

CLASSES.— Rough rice shall be divided into the following sixteen classes: Class I, Honduras; Class II, Edith; Class III, Fortuna; Class IV, Carolina; Class V, Lady Wright; Class VI, Early Wright; Class VII, Rexoro; Class VIII, Delitus; Class IX, Nira; Class X, Shoemed; Class XI, Blue Rose; Class XII, Early Prolific; Class XIII, Louisiana Pearl; Class XIV, Japan; Class XV, Calady; and Class XVI, Mixed.

GRADES.— Rough rice shall be graded and designated according to the respective grade requirements of the numerical grades and Sample grade of its appropriate class or subclass, and according to the special grades when applicable.

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<sup>1/</sup> The specifications of these standards shall not excuse failure to comply with the provisions of the Food and Drugs Act.

#### HONDURAS ROUGH RICE (CLASS I)

This class shall include the rices known commercially as Honduras and Mortgage Lifter, and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### EDITH ROUGH RICE (CLASS II)

This class shall include the rice known commercially as Edith, and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### FORTUNA ROUGH RICE (CLASS III)

This class shall include the rice known commercially as Fortuna, and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### CAROLINA ROUGH RICE (CLASS IV)

This class shall include the rices known commercially as Carolina and Storm Proof, and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### LADY WRIGHT ROUGH RICE (CLASS V)

This class shall include the rice known commercially as Lady Wright, and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### EARLY WRIGHT ROUGH RICE (CLASS VI)

This class shall include the rice known commercially as Early Wright and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### REXORO ROUGH RICE (CLASS VII)

This class shall include the rice known commercially as Rexoro and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### DELITUS ROUGH RICE (CLASS VIII)

This class shall include the rice known commercially as Delitus, and may include not more than 10 percent of whole kernels of rice of any other class or classes.



#### NIRA ROUGH RICE (CLASS IX)

This class shall include the rice known commercially as Nira (No. C. I. 2702), and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### SHOEMED ROUGH RICE (CLASS X)

This class shall include the rice known commercially as Shoemed, and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### BLUE ROSE ROUGH RICE (CLASS XI)

This class shall include the rices known commercially as Blue Rose, Greater Blue Rose, and Improved Blue Rose, and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### EARLY PROLIFIC ROUGH RICE (CLASS XII)

This class shall include the rice known commercially as Early Prolific, and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### LOUISIANA PEARL ROUGH RICE (CLASS XIII)

This class shall include the rice known commercially as Louisiana Pearl, and may include not more than 10 percent of whole kernels of rice of any other class or classes.

#### JAPAN ROUGH RICE (CLASS XIV)

This class shall include the rice known commercially as Japan, and may include not more than ten percent of whole kernels of rice of any other class or classes. This class shall be divided into two subclasses designated as (a) Japan rough rice and (b) California-Japan rough rice.

##### Subclass (a) Japan Rough Rice

This subclass shall include all rices known commercially as Japan possessing the characteristics of rice of this class as grown east of the Rocky Mountains.

CLASSES I TO XIII, INCLUSIVE, AND SUBCLASS (A) OF CLASS XIV

Grade requirements for the classes Honduras, Edith, Fortuna, Carolina, Lady Wright, Early Wright, Rexoro, Delitus, Nira, Shoemed, Blue Rose, Early Prolific, and Louisiana Pearl rough rice, and for subclass (a) Japan rough rice

United States grade No. <u>1</u> /	Maximum limits of -				
	Damaged kernels		Red rice	Cereal grains	Rice of other classes
	Total	Heat- damaged			
	Percent	Percent	Percent	Percent	Percent
1	2	Trace <u>2</u> /	0.5	Trace <u>2</u> /	1
2	4	0.02	2.5	0.02	2
3	7	.04	5.0	.04	4
4	10	.06	10.0	.06	6
5	15	.08	15.0	.08	10
6	20	.10	20.0	.10	10

**SAMPLE GRADE:** Sample grade shall include rough rice of the class Honduras, or Edith, or Fortuna, or Carolina, or Lady Wright, or Early Wright, or Rexoro, or Delitus, or Nira, or Shoemed, or Blue Rose, or Early Prolific, or Louisiana Pearl, or the subclass (a) Japan of the class Japan, respectively, which does not come within the requirements of any of the grades from No. 1 to No. 6, inclusive, or which has any commercially objectionable foreign odor, or is sour, heating, or hot, or is otherwise of distinctly low quality.

1/ The rough rice in each grade above Sample grade shall be cool.

2/ "Trace" in the above tabulation shall be interpreted to mean not more than 1 kernel in 500 grams.



### Subclass (b) California-Japan Rough Rice

This subclass shall include all rices known commercially as Japan possessing the characteristics of rice of this class as grown west of the Great Plains area of the United States.

### CALADY ROUGH RICE (CLASS XV)

This class shall include the rice known commercially as Calady and other rices of similar type, possessing the characteristics of rice of this class as grown west of the Great Plains area of the United States, and may contain not more than 10 percent of whole kernels of rice of any other class or classes.

### SUBCLASS (b) OF CLASS XIV AND CLASS XV

Grade requirements for subclass (b) California-Japan  
and for the class Calady, rough rice

United States grade No. <u>1</u> /	Maximum limits of -							
	Damaged kernels	Heat-damaged	Red rice	Chalky kernels	Foreign material other than dockage	Cereal grains and objectionable weed seeds	Rice of other classes	
	:Percent	:Percent	:Percent	:Percent	:Percent	:Percent	:Percent	
1	: 0.2	: Trace <u>2</u> /	: 0.1	: 4	: 0.2	: 0.01	: 0.5	
2	: .4	: 0.02	: .2	: 8	: .5	: .02	: 1.0	
3	: .7	: .04	: .5	: 12	: .7	: .04	: 2.0	
4	: 1.0	: .06	: 1.0	: 16	: 1.0	: .06	: 3.0	
5	: 1.5	: .08	: 2.0	: 20	: 1.5	: .08	: 4.0	
6	: 2.0	: .10	: 5.0	: - -	: 2.0	: .10	: 5.0	

**SAMPLE GRADE:** Sample grade shall include rough rice of the subclass (b) California-Japan, or of the class Calady which does not meet the requirements of any of the grades from No. 1 to No. 6, inclusive; or which contains more than 17 percent of moisture; or which contains more than 5 percent of muddy kernels, or more than 2 percent of mud lumps; or which has any commercially objectionable foreign odor, or is sour, or heating, or hot; or which is otherwise of distinctly low quality.

1/ The rough rice in each grade above Sample grade shall be cool.

2/ "Trace" in the above tabulation shall be interpreted to mean not more than one kernel in 500 grams.

## MIXED ROUGH RICE (CLASS XVI)

This class shall include all mixtures of rough rice not provided for in the classes from I to XV, inclusive.

GRADE REQUIREMENTS AND DESIGNATIONS.- Mixed Rough Rice shall be graded according to the grade requirements of the class or subclass of rough rice which predominates in the mixture, except that the grade specifications for the factor "rice of other classes" shall be disregarded.

The grade designation for Mixed Rough Rice shall include, successively, in the order named, (1) the number of the grade, or the words "Sample grade" as the case may be, (2) the words "Mixed Rough Rice", and (3) the name and approximate percentage of each class or subclass of rough rice which constitutes ten percent or more of the mixture in the order of its predominance; but if only one class or subclass exceeds ten percent of the mixture, the name and approximate percentage of that class or subclass shall be added to the grade designation, followed by the name and approximate percentage of at least one other class or subclass.

### DOCKAGE (PACIFIC STATES)

Dockage shall apply only to rough rice of the subclass (b) California-Japan of Class XIV and to rough rice of the class Calady, and to Mixed Rough Rice in which rice of the subclass (b) California-Japan or rice of the class Calady predominates.

DEFINITION.- Dockage includes weed seeds, weed stems, chaff, straw, grain other than rice, sand, dirt, and any other foreign material, which can be removed readily from the rough rice by the use of appropriate sieves and cleaning devices; also undeveloped, "blank"; shriveled, and small pieces of rice kernels removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning.

DOCKAGE STATEMENT.- The quantity of dockage shall be calculated in terms of percentage based on the total weight of the rough rice including the dockage. The percentage of dockage so calculated, when equal to 1 percent or more, shall be stated in terms of whole percent, and when less than 1 percent shall not be stated. A fraction of a percent shall be disregarded. The word "Dockage", together with the percentage thereof, shall be added to the grade designation.



## SPECIAL GRADES FOR ROUGH RICE

### DAMP, WET, AND VERY WET ROUGH RICE <sup>a/</sup>

#### DAMP ROUGH RICE

DEFINITION.- Rough rice, other than rough rice of the class Calady and of the subclass (b) California-Japan of Class XIV, which contains more than 14.5 percent but not more than 16 percent of moisture shall be considered damp.

Rough rice of the class Calady and of the subclass (b) California-Japan of Class XIV, which contains more than 15 percent but not more than 17 percent of moisture shall be considered damp. <sup>1/</sup>

GRADES.- Damp rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not damp, and there shall be added to, and made a part of, the grade designation, the word "Damp".

#### WET ROUGH RICE

DEFINITION.- Rough rice, other than rough rice of the class Calady and of the subclass (b) California-Japan of Class XIV, which contains more than 16 percent but not more than 17.5 percent of moisture shall be considered wet.

GRADES.- Wet rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not wet, and there shall be added to, and made a part of, the grade designation, the word "Wet".

#### VERY WET ROUGH RICE

DEFINITION.- Rough rice, other than rough rice of the class Calady and of the subclass (b) California-Japan of Class XIV, which contains more than 17.5 percent of moisture shall be considered very wet.

GRADES.- Very wet rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not very wet, and there shall be added to, and made a part of, the grade designation, the words "Very Wet".

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<sup>1/</sup> Rough rice of the class Calady and of the subclass (b) California-Japan of Class XIV, which contains more than 17 percent of moisture shall be graded "Sample grade".

<sup>a/</sup> As amended, effective August 1, 1939.

## SLIGHTLY SEEDY, SEEDY, AND VERY SEEDY ROUGH RICE (SOUTHERN STATES)

### SLIGHTLY SEEDY ROUGH RICE

DEFINITION.- Slightly seedy rough rice shall be rice of any class from Class I to Class XIII, inclusive, and rough rice of subclass (a) Japan of Class XIV, which contains more than 0.1 percent but not more than 0.5 percent of weed seeds.

GRADES.- Slightly seedy rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not slightly seedy, and there shall be added to, and made a part of, the grade designation, the words "Slightly Seedy".

### SEEDY ROUGH RICE

DEFINITION.- Seedy rough rice shall be rice of any class from Class I to Class XIII, inclusive, and rough rice of subclass (a) Japan of Class XIV, which contains more than 0.5 percent but not more than 2 percent of weed seeds.

GRADES.- Seedy rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not seedy, and there shall be added to, and made a part of, the grade designation, the word "Seedy".

### VERY SEEDY ROUGH RICE

DEFINITION.- Very seedy rough rice shall be rice of any class from Class I to Class XIII, inclusive, and rough rice of subclass (a) Japan of Class XIV, which contains more than 2 percent of weed seeds.

GRADES.- Very seedy rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not very seedy, and there shall be added to, and made a part of, the grade designation, the words "Very Seedy".



## SLIGHTLY MUDDY, MUDDY, AND VERY MUDDY ROUGH RICE

### SLIGHTLY MUDDY ROUGH RICE

DEFINITION.- Slightly muddy rough rice shall be rough rice of any class which contains more than 1 percent but not more than 2 percent of muddy kernels, or rough rice which contains more than 0.1 percent but not more than 0.5 percent of mud lumps.

GRADES.- Slightly muddy rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not slightly muddy, and there shall be added to, and made a part of, the grade designation, the words "Slightly Muddy".

### MUDDY ROUGH RICE

DEFINITION.- Muddy rough rice shall be rough rice of any class which contains more than 2 percent but not more than 5 percent of muddy kernels, or rough rice which contains more than 0.5 percent but not more than 2 percent of mud lumps. 1/

GRADES.- Muddy rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not muddy, and there shall be added to, and made a part of, the grade designation, the word "Muddy".

### VERY MUDDY ROUGH RICE

DEFINITION.- Rough rice, other than rough rice of the class Calady and of the subclass (b) California-Japan of Class XIV, which contains more than 5 percent of muddy kernels, or more than 2 percent of mud lumps, shall be considered very muddy.

GRADES.- Very muddy rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not very muddy, and there shall be added to, and made a part of, the grade designation, the words "Very Muddy".

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1/ Rough rice of the class Calady and of the subclass (b) California-Japan of Class XIV which contains more than 5 percent of muddy kernels or more than 2 percent of mud lumps shall be graded "Sample grade".

## SLIGHTLY CHALKY, CHALKY, AND VERY CHALKY ROUGH RICE (SOUTHERN STATES)

### SLIGHTLY CHALKY ROUGH RICE

DEFINITION.- Rough rice, other than rough rice of the classes Japan and Calady, which contains more than 2 percent but not more than 5 percent of chalky kernels shall be considered slightly chalky.

Rough rice of the subclass (a) Japan of the class Japan, which contains more than 3 percent but not more than 6 percent of chalky kernels shall be considered slightly chalky.

GRADES.- Slightly chalky rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not slightly chalky, and there shall be added to, and made a part of, the grade designation, the words "Slightly Chalky".

### CHALKY ROUGH RICE

DEFINITION.- Rough rice, other than rough rice of the classes Japan and Calady, which contains more than 5 percent but not more than 10 percent of chalky kernels shall be considered chalky.

Rough rice of the subclass (a) Japan of the class Japan, which contains more than 6 percent but not more than 10 percent of chalky kernels shall be considered chalky.

GRADES.- Chalky rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not chalky, and there shall be added to, and made a part of, the grade designation, the word "Chalky".

### VERY CHALKY ROUGH RICE

DEFINITION.- Rough rice, other than rough rice of the class Calady and of the subclass (b) California-Japan of the class Japan, which contains more than 10 percent of chalky kernels shall be considered very chalky.

GRADES.- Very chalky rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not very chalky, and there shall be added to, and made a part of, the grade designation, the words "Very Chalky".



## WEEVILY ROUGH RICE

DEFINITION.- Weevily rough rice shall be rough rice of any class which is infested with live weevils or other insects injurious to stored rice.

GRADES.- Weevily rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not weevily, and there shall be added to, and made a part of, the grade designation, the word "Weevily".

## MUSTY ROUGH RICE

DEFINITION.- Musty rough rice shall be rough rice of any class which has an unmistakable musty odor.

GRADES.- Musty rough rice shall be graded and designated according to the grade requirements of the standards applicable to such rice if it were not musty, and there shall be added to, and made a part of, the grade designation, the word "Musty".

## MILLING QUALITY (SOUTHERN STATES)

Milling quality shall apply only to rough rice of the Classes I to XIII, inclusive, and to rough rice of subclass (a) Japan of Class XIV.

Milling quality shall be based on the utility value of the rough rice for milling purposes. The test for milling quality shall be determined by the use of the Smith shelling device, described in Circular No. 48, dated October 1928, issued by the United States Department of Agriculture and in accordance with methods prescribed by the United States Department of Agriculture.

Milling quality shall be determined as Prime milling quality, Good milling quality, Medium milling quality, Fair milling quality, Ordinary milling quality, or Low milling quality for head rice yield, and as A milling quality, B milling quality, C milling quality, D milling quality, E milling quality, or F milling quality for total yield of head rice and broken rice.

The milling quality so determined shall be stated in hyphenated form (as for example, Prime-A milling quality) and shall be added to, and made a part of, the grade designation of all rough rice, to which it applies.

## DEFINITIONS

BASIS OF GRADE DETERMINATIONS (SOUTHERN RICE)<sup>a/</sup>. - In the case of rough rice other than rough rice of the subclass (b) California-Japan of Class XIV, and of the class Calady, each determination of general appearance, temperature, odor, separable foreign material, live weevils or other insects injurious to stored rice, and milling quality, shall be on the basis of the lot of rice as a whole. Each determination of red rice, damaged kernels, heat-damaged kernels, chalky kernels, class, subclass, and rice of other classes, shall be on the basis of the rice after shelling. All other determinations shall be on the basis of the rice when free from separable foreign material and before shelling.

BASIS OF GRADE DETERMINATIONS (PACIFIC STATES). - In the case of rough rice of the subclass (b) California-Japan of Class XIV, and of the class Calady, each determination of dockage, general appearance, temperature, odor, and live weevils or other insects injurious to stored rough rice shall be on the basis of the rough rice including the dockage. Each determination of red rice, damaged kernels, heat-damaged kernels, chalky kernels, class, subclass, and rice of other classes shall be on the basis of the dockage-free rice after shelling. All other determinations shall be on the basis of the rice when free from dockage and before shelling.

PERCENTAGES. - Percentages, except in the case of moisture, shall be percentages ascertained by weight.

PERCENTAGE OF MOISTURE. - Percentage of moisture shall be that ascertained by the air oven and the method of use thereof described in Service and Regulatory Announcements No. 147 of the Bureau of Agricultural Economics of the United States Department of Agriculture, or ascertained by any device and method which give equivalent results in the determination of moisture.

CHALKY KERNEL. - A chalky kernel shall be a kernel or a piece of a kernel of rice one-half or more of which is chalky.

DAMAGED KERNELS. - Damaged kernels shall be kernels and pieces of kernels of rice which have been distinctly damaged by water, insects, or by any other means. Sound broken kernels and kernels of which the hulls or bran only have been damaged shall not be considered as damaged kernels.

HEAT-DAMAGED KERNELS. - Heat-damaged kernels shall be kernels and pieces of kernels of rice which have been distinctly discolored by external heat or as a result of heating caused by fermentation.

RED RICE. - Red rice shall be whole or broken kernels of rice of which the bran is distinctly red or pink in color.

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<sup>a/</sup> As amended effective May 26, 1938.



CEREAL GRAINS.- Cereal grains shall include barley, rye, wheat, emmer, spelt, einkorn, corn, and grain sorghums, and shall not include buckwheat, flaxseed, oats, and wild oats.

FOREIGN MATERIAL OTHER THAN DOCKAGE.- In the case of rough rice of subclass (b) California-Japan of Class XIV, and rough rice of the class Calady, foreign material other than dockage shall include all matter other than rough rice which is not separated from the rough rice in the proper determination of dockage, except that mud lumps shall not be considered as foreign material.

SEPARABLE FOREIGN MATERIAL.- In the case of rice, other than rough rice of subclass (b) California-Japan of Class XIV, and rough rice of the class Calady, separable foreign material shall be weed seeds, weed stems, chaff, straw, grain other than rice, sand, dirt, and any other foreign material, which can be removed readily from the rice by the use of appropriate sieves and cleaning devices approved by the United States Department of Agriculture; also undeveloped, shriveled, and small pieces of rice kernels removed in properly separating the foreign material, and which cannot be recovered by properly rescreening or recleaning.

MUDDY KERNELS.- Muddy kernels shall be kernels of rough rice with a distinct amount of mud clinging to them.

MUD LUMPS.- Mud lumps shall be lumps of dried mud which remain in the rough rice after the removal of "Separable foreign material" or which remain in the rough rice after the removal of "Dockage", as the case may be.

WEED SEEDS.- Weed seeds shall be grains, kernels, or seeds, either whole or broken, of any plant other than rice or other cereal grains.

OBJECTIONABLE WEED SEEDS.- Objectionable weed seeds shall be seeds of Sesbania, morning-glory, Sudan grass, cheat, and similar seeds, that remain in the rough rice after the removal of dockage.

